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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,269	11/24/2003	W. Richard Frederick	51751-00014USPT	6364

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EXAMINER
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DINH, TRINH VO

ART UNIT	PAPER NUMBER
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2821

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/722,269

Applicant(s)

FREDERICK, W. RICHARD

Examiner

Trinh Vo Dinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>03/01/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The specification is objected to because the following informality:

In the specification, page 5, paragraph [00020], "Fig. 15" should be changed to --Fig. 4— because no Fig. 15 in the application.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "DB21" on page 5, paragraph [0022], and "FH201", "DB221" on page 9, paragraph [00036].

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim objections***

3. Claims 2-14, 16-28 and 30-41 are objected to because of the following informalities:

In claims 2-14, 16-28 and 30-41, "A" should be changed to --The--.

### ***Claim Rejections - 35 USC & 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is unclear if each of the lights are connected in parallel, or if only groups of the light need to be connected in parallel while each light is connected in some other arrangement. Claims 15 and 29 are indefinite for the same reasons.

For the purpose of examination, the claimed language of "each of said light, or the groups of said light, being connected in parallel" is best understood by the Examiner as each of the lights connected in parallel.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-3, 5-10, 13, 15-17, 19-24, 27 drawn to the apparatus and method claims 29-31, 33-38, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leake (US Pat. 4,984,999 of record) in view of Sham (US Pat. 5,463,205).

Respecting claims 1 and 15, Leake discloses a string of decorative lights, such string having a power supply (23 in Figure 1, col. 3, lines 8-14), the power supply having an input (31) adapted for connection to a standard residential electrical power outlet (Figure 1), the power supply including circuitry for converting the standard residential voltage to a low-voltage output

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(col. 3, lines 21-25), a pair of conductors (13) connected to the output of the power supply (col. 3, lines 13-15) for supplying the low-voltage output to a multiple decorative lights (17, col. 4, lines 17-22), the multiple of lights being connected to said conductors along the length thereof (col. 2, lines 63-66), each of the lights being connected in parallel across the conductors (col. 3, lines 48-50).

However, Leake does not suggest the input being connected through a fuse to a diode bridge. Sham discloses, in Fig. 22, an input (22) of a power supply (120) being connected through a fuse (124) to a diode bridge (131).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Leake's power supply with a diode bridge through a fuse as taught by Sham since a diode bridge is well known/conventional in the art to convert alternating current to direct current as disclosed in Sham, col. 6, lines 11-32.

Respecting claims 3 and 17, Leake discloses the lights requiring a voltage or about 6 volts or less (col. 4, lines 26-30).

Respecting claims 6-9 and 20-23, Leake discloses the low-voltage output being DC (col. 3, lines 26-29), the output being AC (col. 3, lines 21-23), the low-voltage output being less than 30 volts (col. 3, lines 21-23), and the power supply including an electronic power transformer (col. 3, lines 21-23).

Respecting claims 13 and 27, Leake discloses the conductors being connected to a fixed number of lights so as to provide a fixed load on the power supply (Fig. 1).

Respecting claims 2, 5, 10, 16, 19 and 24, Leake as modified by Sham discloses every features of the claimed invention except the lights being a half-watt bulb, lights being 100 6-volts

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lights, power supply being a switching power supply, the power supply converting a residential frequency to a higher frequency output which is about 10KHz to 150 KHz, the power supply having a soft-start. However, It would have been an obvious matter of design choice to use about half-watt bulbs for Leake's lights, a 100 6-volts lights, or specific power supply, since the applicant has not disclose that a specific bulb, quantity of bulbs, or a specific type of power supply solves any problem or is for any particular reason. It appears that the claimed invention would perform equally well with the lights disclosed by Leake. In addition, selecting a specific bulb, quantity or bulbs, or choosing a power supply type would have flown naturally to one of ordinary skill in the art, as required for a particular application.

Respecting claims 29-31, 33-38 and 41, the apparatus discussed above would perform the claimed method.

8. Claims 4, 14, 18 and 28 drawn to the apparatus and method claim 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leake as modified by Sham, and further in view of Gibboney (US Pat. 6, 344,716 of record).

Respecting claims 4 and 18, Leake as modified by Sham discloses every features of the claimed invention except the lights being connected in parallel in parallel groups of two to five lights per group. Gibboney discloses a multiple lights (34 in Fig. 3) being connected in parallel in parallel groups of 2-5 lights per group (Figs. 2-3) and lights within each group being connected in series (Figs. 2-3). It would have been obvious to one skill in the art to employ the teaching of Gibboney to the string of decorate lights of Leake to obtain a parallel-series connected light string capable of being dimmed and maintained the illumination output even if some of the lights fail.

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Respecting claims 14 and 28, Gibboney discloses means (38) for shunting each of the lights in response to a failure of each of the lights.

Respecting claims 32, the apparatus discussed above in claim 4 would perform the claimed method.

9. Claims 11-12 and 25-26 drawn to the apparatus and method claims 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leake as modified by Sham, and further in view of Carroll (US Pat. 4,906,901).

Respecting claims 11 and 25, Leake as modified by Sham discloses every features of the claimed invention except the power supply converting the standard frequency to a higher frequency output. Carroll discloses a power supply for converting the standard residential frequency to a higher frequency output (abstract or col. 1, lines 32-59). It would have been obvious to one skill in the art to use Carroll's power supply to operate Leake's light string since the use of Carroll's power supply that utilizes a signal with higher frequency will allow a greater number of lights used and the lights extended over a greater distances from the power supply as compared to prior art power supplies.

Respecting claims 12 and 26, Carroll discloses the higher frequency being in the range from about 10 KHz to 150 KHz (abstract).

Respecting claims 39-40, the apparatus discussed above would perform the claimed method.

***Inquiry***

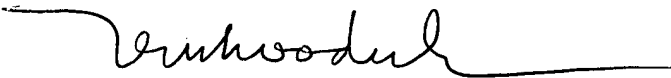
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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh Vo Dinh whose telephone number is (571) 272-1821. The examiner can normally be reached on Monday to Friday from 9:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'Trinh Vo Dinh', with a long horizontal flourish extending to the right.

*Trinh Vo Dinh*  
*June 13, 2005*